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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS - JUNE 5, 1946
(First Cotton Insect Survey Report for 1946)

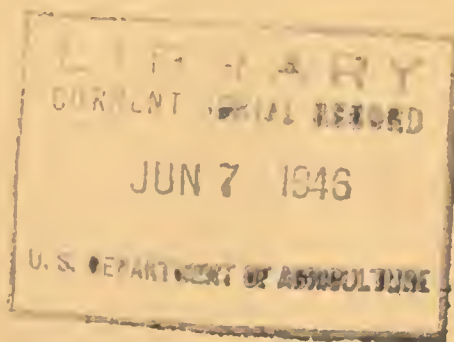
The Cotton Insect Survey is being resumed this week. This report is based on information furnished by field laboratories of the Bureau of Entomology and Plant Quarantine in South Carolina, Georgia, Mississippi, Louisiana, Texas, and Arizona.

In general boll weevils are more abundant than usual during the first week of June. The weevil populations were high last fall in most areas and the winter of 1945-46 was comparatively mild, so it was expected that the weevils would be abundant this spring. The early boll weevil infestations are somewhat spotted but the survival in most places is above average. Some dusting with calcium arsenate for boll weevil control, and with sulphur and DDT for cotton flea hopper control was done during May in southern Texas. Mixtures of calcium arsenate and sulphur were used in some cases to control both weevils and flea hoppers.

In a few limited areas special conditions reduced the weevil populations. In the Lower Rio Grande Valley and adjacent areas in southern Texas the successful campaign waged by the cotton growers, the State of Texas, and this Department in getting the cotton fields cleaned up early in 1945 to check the spread of the pink bollworm also stopped boll weevil breeding last fall and there are now fewer weevils than usual in that area. In some other localities early destruction of the cotton stalks, or hot dry weather late in the 1945 season, reduced the weevils so that there were few of them to go into hibernation last fall and therefore few to enter the cotton fields this spring. In some of the Delta counties of Arkansas, Louisiana, and Mississippi, and possibly other areas, heavy winter rains flooded the fields and woods to such an extent that millions of weevils were drowned.

No cotton leafworms have as yet been reported. In general the cotton flea-hopper, cotton aphid, and bollworm infestations are below normal.

Thrips and beet armyworms are the only insects that have been reported as causing serious damage to cotton this spring. DDT has been used for control of both of these insects with good results.



BOLL WEEVIL

TEXAS: In the Lower Rio Grande Valley the weevils continue to be scarce as they have been throughout the spring. The early thorough clean-up of cotton fields to check the pink bollworm in 1945 accounts for the reduced boll weevil population in that area at the present time. Near Waco, Texas three cotton fields were examined during the week ending June 1, where the average population was 711 boll weevils per acre. The weevils may cause serious damage in this area if conditions continue favorable. In the hibernation cages installed last fall at Waco, 1.2% of the boll weevils emerged during May. This is less than half of the May emergence in 1944 and 1945, but more than in 1942 and 1943.

LOUISIANA: In the vicinity of Tallulah, Madison Parish in the northeastern section of the State, the average emergence of weevils during May in hibernation cages installed last fall was 6.78%. During the past 15 years there have been only 3 years, 1937, 1941, and 1945, when the May emergence of weevils in the hibernation cages was higher than it was this year. The weevil emergence during May in the hibernation cages has been as follows:

<u>Year</u>	<u>Percent Survival</u>	<u>Year</u>	<u>Percent Survival</u>
1932	4.80	1939	1.44
1933	3.32	1940	.02
1934	2.64	1941	9.88
1935	.46	1942	.06
1936	.04	1943	.64
1937	8.74	1944	1.40
1938	.60	1945	8.24
		1946	6.78

During the last week of May boll weevils were more abundant in the cotton fields of Madison Parish than during any of the previous 14 years except 1932 and 1934.

Field Population of Weevils - May 24-30th, Tallulah, La.

<u>Year</u>	<u>Weevils per acre</u>	<u>Year</u>	<u>Weevils per acre</u>
1932	340	1939	81
1933	228	1940	22
1934	545	1941	130
1935	295	1942	44
1936	15	1943	205
1937	47	1944	72
1938	84	1945	108
		1946	314

MISSISSIPPI: Weevils were found in four of the twenty cotton fields examined in Washington County during the week ending June 1, averaging 113 weevils per acre in the infested fields. All weevils were found in fields near woods and houses. Weevils found in cotton fields on approximately the same dates for eight years are as follows:

Weevils per acre in infested fields

<u>Year</u>	<u>May 18</u>	<u>May 25</u>	<u>June 1</u>
1939	0	594	220
1940	0	0	0
1941	0	100	70
1942	10	39	32
1943	150	91	92
1944	167	168	136
1945	0	0	100
1946	50	88	113

These records indicate that boll weevils are present in sufficient numbers to cause serious damage this summer unless checked by natural conditions or the use of insecticides.

GEORGIA: On June 1 most of the cotton in Tifton County had from one to three squares per plant large enough for boll weevils to puncture. In 7 fields examined the infestations ranged from 9% to 29% punctured squares, or an average of about 14%. In one field of late cotton not yet in the squaring stage boll weevils were found at the rate of 1700 per acre.

SOUTH CAROLINA: In Florence County 11 fields were examined and boll weevils were found at the rate of 320 per acre. The weevils are slightly more numerous in the fields than they were a year ago, more than twice as numerous as at this time in 1944, and $3\frac{1}{2}$ times as numerous as on June 5, 1943.

INSECTS ON IRRIGATED COTTON OF THE SOUTHWEST

Field studies made in the Salt River and Santa Cruz Valleys of Arizona and in the El Paso Valley of Texas show that the stinkbugs, Lygus bugs, and other plant bugs that attack cotton are less numerous now than they were a year ago. Thrips and grasshoppers have caused limited damage in some fields. Beet armyworms have appeared in damaging numbers in some Arizona cotton fields where several hundred acres of cotton were dusted during May with 5% DDT dust at the rate of 15 pounds per acre application with good results. Cutworms have caused some damage to cotton in the El Paso Valley in fields where alfalfa was grown last year.

June 5, 1946

